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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

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Response to Arguments

Applicant argues that,

> "Crichton does not disclose *detecting an omnidirectional sounding pulse from a wireless transmit receive unit (WTRU) on a frequency that is in close proximity to uplink and downlink frequencies and is different from the uplink and downlink frequencies….*
>
> Furthermore, even assuming that the RACH is different from the "traffic channel TCH", as indicated in the October 8, 2010 Office Action, the RACH channel is transmitted on an uplink frequency and therefore is not *different from the uplink and downlink frequencies* "

The examiner respectfully disagrees. The examiner must give the broadest reasonable interpretation of the claim. The broad limitation "uplink frequencies and downlink frequencies" can read on different range of frequencies such as "***traffic*** *uplink* frequencies and ***traffic*** *downlink* frequencies" or "***control*** *uplink* and ***control*** *downlink* frequencies". As addressed in the action, RACH uses a frequency range that is designated only for control channels which is different from traffic uplink frequencies and traffic downlink frequencies. Applicant seems to be arguing that because RACH is using a control uplink frequency it does not use a frequency different from the uplink frequency. The examiner notes that the RACH uplink frequency is indeed different from the traffic uplink or downlink frequency. Since the RACH uses a ***control*** *uplink frequency* which is different from the ***traffic*** *uplink or* ***traffic*** *downlink frequencies*, Crichton's teaching clearly reads on the claim. The claim does not specifically state a numeric range of frequency range nor does it require that the frequencies covers all possible uplink and downlink frequencies of the whole frequency spectrum, meaning it

does not explicitly that the uplink and downlink frequencies includes both the control and traffic channels.

Applicant argues that,

> Crichton also fails to disclose *receiving from the interface a relative location of the WTRU* as recited in independent claim 57, and similarly in independent claim 71. Instead, Crichton teaches that the base station estimates the angle of reception of a received signal and calculates, rather than receives, a relative location of the communicating device (column 9, lines 15 -21).

The examiner respectfully disagrees. The examiner must give the broadest reasonable interpretation of the claim.

The examiner must give the broadest interpretation of the claim, "*receiving from the interface a relative location of the WTRU*" and all the limitation requires is "the relative location is received at a base station from an interface/intermediate device/component".

Critchon teaches,

> "Upon powering-up (or when transitioning a coverage area boundary), a communication unit transmits 200 a request for access/service on a wide-area RACH having a dedicated frequency within the communication stem 10." (C5 L35-38)
> "In the event that the RACH is received, the communication system 10 broadcasts at least one narrowbeam BCCH in a direction of the requesting communication unit. Specifically, any base station equipment that receives the request of the wide-area RACH *broadcasts a beamformed BCCH in the direction of the communication device* 208 (based on a directional of arrival of the wide-area REACH at the array of antenna elements of the base station equipment), with the communication unit left to select 210 the base station equipment having the strongest BCCH as its serving site. "(C5 L35-38)....
>
> "The new BCCHs transmitted as test signals from candidate base station equipment are also narrowbeam signals. Specifically, narrowbeam (test signal) transmissions are possible because the candidate base station equipment has access to a data base of information relating to the relative orientation and grid references of base station equipment generally, and the serving base station equipment **imparts** angular information (i.e. realised from direction of arrival information) relating to the mobile unit. Consequently, by **using the relative orientation**, grid references and angular information, the candidate **base station** equipment is able to ***form a narrowbeam BCCH in the direction of the mobile unit*** requiring handoff." (C8 L40-45)

Thus the first excerpt shows that the MS sends out a RACH to seek service from a Base Station (BS). And the second excerpt shows that the RACH signal, received at the BS from the communication unit (MS), would yield a direction of arrival or the relative location of the MS and the BS would direct its beam toward the position of the mobile station. Since the BS has know the relative position of the MS in order to direct its beam toward the direction of the MS, a component/device of the BS must have received the relative location from an intermediate device/component. This component can be part of the base station where the RACH signal is received and a position is correlated and then an intermediate component would inform the correlated position to the proper component within the base station to direct the proper beam toward the position of the mobile.

The third excerpt shows angular information was imparted (relative position was shared/sent to and received) by a BS to form the beam.

Thus in any case, since the base station has to direct its beam toward the mobile device, there must be an interface/intermediate component/device within or external the device that tells the base station the relative position so that it knows where to direct its beam. Since the word interface is such a broad term it can be broadly interpreted as an intermediate component that exists within or external to the BS.

Based on the above reasoning, the final rejection is maintained.

/Kent Chang/
Supervisory Patent Examiner, Art Unit 2617